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BEFORE THE

COMMITTEE ON EDUCATION

HOUSE OF REPRESENTATIVES

SIXTY-THIRD CONGRESS

SECOND SESSION

ON

H. R. 11749

A BILL TO CREATE A NATIONAL UNIVERSITY AT THE SEAT OF THE FEDERAL GOVERNMENT

STATEMENT OF

DR. CHARLES W. DABNEY

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COMMITTEE ON EDUCATION.

HOUSE OF REPRESENTATIVES, SIXTY-THIRD CONGRESS.

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NATIONAL UNIVERSITY.

STATEMENT OF MR. CHARLES W. DABNEY, PRESIDENT OF THE UNIVERSITY OF CINCINNATI, CINCINNATI, OHIO.

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Dr. DABNEY. The very persistence of the movement for the establishment of a national university, after a century of intermittent discussion without any progress, would seem of itself to show that there was not only a great need felt for it but that there were forces behind it which must ultimately bring it to life. The gradual piling up of organized influences in support of the proposal is one of the striking things in our American educational history, and proves that there is something behind the movement more powerful than the sentiment growing out of George Washington's bequest. My purpose, therefore, is to show that the proposal arises naturally out of the needs of the educational and scientific institutions of the country, especially of the great State universities and agricultural and mechanical colleges, and of the scientific bureaus and other departments of Government here in Washington. My thesis, then, is that the national university is necessary for the completion of these institutions, State and National, and will therefore be rather an evolution than a creation, a development out of existing institutions and not an entirely new establishment. In this broad sense the national university already exists in the great libraries, museums, and scientific bureaus carried on by the Nation at the Capital, and in the great surveys covering the country, conducted under the auspices of the National Government.

Undoubtedly George Washington had in mind the establishment at the Capital of a national university of the type that existed in his day at the capitals of the various continental countries; that is, an institution for general higher and professional education. The development in this country of great private institutions, and especially of the State universities, the characteristic institutions of America, has entirely removed the necessity for this type of institution in Washington. Failure to recognize this has caused great confusion in the past and is chiefly responsible for the failure of the earlier advocates of the national university to impress their views upon the educational authorities of the country. That an ordinary university, no matter how great and rich it might be, was not needed at Washington has been clearly recognized by all who have discussed the matter in the last 20 years. During this time the demand for a great graduate institution which should correlate the scientific bureaus and departments and be the head of the universities of the country—an institution, in short, which would be a university for university-trained men, rather than a popular institution—has become steadily greater. The chief demand has been for an agency

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which would open up to the students of the country the vast stores of material for study found in the National Capital. In order to do this it has been apparent to all that some organization of the university type was necessary. Every proposal made in recent years has been based on this opinion—that tremendous resources for study and research are going to waste in Washington and that some organization should be provided to make them available for advanced students of history, government, economics, natural science and its applications.

In recent years the opinion has also been growing that the Government itself should promote such study as a means of preparing men for its own service and of developing a scientific knowledge and public opinion which would aid Congress, the State legislatures, and the municipalities in giving the people better government. It is evident also that the ordinary methods of the civil service are not meeting the demands of the Government, States, and cities for scientific experts, and the work of some of the great State universities, like the University of Wisconsin, in cooperating with and serving their State legislatures and administering their State commissions and bureaus has led many to believe that the national university would be of similar service to our National Government. The purpose of the present writer, then, is to try to trace the development of this, which he believes to be the true conception of the national university.

The first definite formulation of this conception that we have record of was in a resolution of Congress approved April 12, 1892, which, after referring to the large collections in Washington and the duty of the Government to—

promote the work of education by attracting students to avail themselves of the advantages aforesaid under the direction of competent instructors—

Declared that—

the facilities for research and illustration in the following and other governmental collections in the city of Washington for the promotion of knowledge shall be accessible under proper rules to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated in the District of Columbia.

Following this was a list of all the chief Government institutions. The limitation to institutions in the District of Columbia was removed by act of March 3, 1901, so as to extend these provisions—

to duly qualified individual students and graduates of institutions of learning in the several States and Territories, as well as in the District of Columbia.

This resolution accomplished little, for these collections are scattered all over Washington in the care of officials not primarily interested in students. Some investigators were able to hunt up the material they wanted, but their general failure to do so caused next a movement to form a central bureau or clearing house to which students could go for information with regard to the facilities for study and the openings for scientific work in Washington. In the absence of information describing these facilities it had proved almost futile for students to come here on their own hook and seek to find what they wanted. The ordinary student would be lost in the mazes of the Government bureaucracy. As President Hadley said some years later—

the student who comes to Washington to-day to get his scientific training in the Government departments comes under his own impulse and at his own risk.

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National university

The Association of Agricultural Colleges and Experiment Stations renewed the agitation, therefore, by appointing at the meeting in July 1897, a committee to—

> investigate, consider, and if practicable, devise a plan whereby graduate students may have access to and use of the Congressional Library and the collections in the Smithsonian Institution and the scientific bureaus of the various departments at Washington. * * * ; the composition and organization of such a staff as may be necessary to properly coordinate and direct such work and offer an outline of such legislation as may be necessary to effect the general purposes of this resolution.

In response to this resolution, the committee reported that they thought the time was ripe for action, and that some existing agency should be found to undertake such work of organization, coordination, and direction, and that they had therefore turned to the Smithsonian Institution as the one best fitted for the purpose.[1]

The matter was duly presented to the Board of Regents of the Smithsonian Institution at its meeting on January 24, 1900, but on the advice of the secretary, the institution declined to take any action and laid the matter over until the following year. When the board met again the Carnegie Institution had been founded, and the matter is not mentioned again in the proceedings of the Smithsonian Institution as far as I have read.

Mr. Fess. Would it interfere with your remarks if I should ask you questions?

Dr. Dabney. Not at all.

Mr. Fess. Would the plan of utilizing the departments here interfere in any way with the research work that would be carried on?

Dr. Dabney. I can not see how it would. I think it would aid and further the work of the Government and improve it vastly, just as it aids and improves every scientific investigator to teach along the line of the subject he is investigating. I think the universal verdict of the educators is that it helps an investigator if he can have a small body of students to teach, and that he can better understand his subject by explaining it to others.

Now, I am afraid my friend Dr. James is laboring under the impression that the proposal to found the Washington Memorial Institution was intended as antagonistic to the national university movement. It was not. It was simply a movement to accomplish some small part of what the national university would accomplish. It was projected by friends of this movement in Washington at the time, because we were almost in despair that anything would ever be done.

The Washington Academy of Sciences next took the matter up in connection with the Washington Memorial Association. The object of the Washington Academy of Sciences was to federate the various scientific societies in the National Capital for the promotion of science in the broadest sense. The Washington Memorial Association was a society of ladies and gentlemen who had undertaken the erection of a building in the Capital as a memorial to Washington, and to provide a home for a bureau to give information and act as a clearing house for students and Government officials. These two organizations agreed that, although American universities had so developed since Washington's time that they fulfilled many of

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[1] P. 58, Bulletin 65, Dept. of Agric. Proceedings Twelfth Annual Convention, 1898.

the objects of the national university as he saw them, there was still great need of a bureau in the city of Washington, which would facilitate the use of the scientific and other resources of the Government for purposes of investigation and should cooperate with the colleges in directing their professors and students where they could find these resources.

As a means of accomplishing these objects, these associations proposed the establishment of an institution in Washington, separate from the Government, which would, through a small corps of officers, and perhaps a small faculty of instructors, bring together the students and the material and scientific men in the National Capital. A committee of the academy was appointed to cooperate with the committees of the Association of Agricultural Colleges and Experiments Stations and the National Education Association in the effort to create a new organization to accomplish their purposes. This committee drafted and secured the passage of the act approved by Congress March 3, 1901, extending the privileges of the Washington departments to all students of the country, and also drafted a plan of organization which was in brief as follows:

A private foundation, independent of Government support or control, was proposed, which was to facilitate the use of the scientific and other resources of the Government for research and cooperate with universities, colleges, and individuals in securing to properly qualified persons opportunities for advanced study and research. The policy, control, and management of the institution was to be vested in a board of 15 trustees, and in addition there should be an advisory board composed of the heads of the executive departments, bureaus, etc. The articles of incorporation, which were issued under the laws of the District of Columbia, May 16, 1901, establishing the Washington Memorial Institution with the object of creating a memorial to George Washington, to promote science and literature, provide opportunities and facilities for higher learning, and to facilitate the utilization of the scientific and other resources of the Government for purposes of research and higher education. Fifteen trustees were elected, including a regent of the Smithsonian Institution, a number of university presidents and heads of Washington bureaus. President Daniel C. Gilman was elected director, with the duty of making all "arrangements for cooperation between the institution, on the one hand, and the Government, universities, learned societies, and individuals on the other." Investigations were made as to facilities and instructors available and the expense of providing a limited number of lecturers.

These would be mostly voluntary, selected from the Government itself.

A report made to the board at this time by the head of one Government survey said:

> So far as America is concerned, it is safe to say that at Washington the facilities for higher education in the sciences are unequaled. No other city in the Union has so large a corps of eminent men engaged in original research in the fields of geology, geography, anthropology, zoology, botany, chemistry, and astronomy.

The committee venture to add, among other subjects, meteorology, political and social science, and kindred subjects.

Most of these men are employed and paid by the Government, so that their services in lecturing and superintending laboratory work could be held at a trifling expense. All that is needed is organization, a home, and a small fund. Incredible as it seems, an excellent course in science, comprising 350 lectures and 140 evenings of laboratory work by 40 different specialists, can be given in this city for the insignificant sum of $5,000—the salary of a single professor in our leading universities. The biological part of the course would be particularly strong, the plans having progressed so far as that a course of 150 lectures and 140 evenings of laboratory work has been arranged for in zoology and botany. In these branches special emphasis could be given to the systematic and economic sides, neglected in most of our universities. The instruction would be given by at least 20 specialists, each proficient in some line of biological research. Courses of equal merit can be arranged in the courses above mentioned. As a recent writer has said, the genius and training are already here, most of the facilities are already provided, and little remains to be done save the coordination of existing instrumentalities. It is of the utmost importance that the early steps be guided by wisdom and experience.

Gentlemen, that report was written in 1900. How much greater the opportunities are to-day you can judge. The Government departments have all grown immensely. This is a summary of a report prepared to show what could be done by the men in Washington at that time. I think that was a little too optimistic in the matter of expense; I think it would be a little larger, but there was a good deal of enthusiasm for this scheme for a small institution at the time this proposal was drawn up. But it was looked upon merely as a beginning.

Mr. Fess. From the standpoint of an educator, what would you say about the expense? Would you try to get through with a little?

Dr. Dabney. Well, I think the Nation demands a great university here. I dislike to minimize it, but we thought at that time that a vast deal could be done with a little money, but that was because we had so much here already. For the establishment of the national university now, there ought to be an ample fund, because I do not believe the people of the United States want to begin so big a thing in a small way. But any beginning will be better than no beginning at all.

With plans of this kind in mind, it was proposed to raise for this initial private institution an endowment to provide $50,000 a year to pay the expenses of such a central bureau and the salaries of a limited number of instructors. To raise this fund, the Washington institution appointed a committee to confer with various gentlemen supposed to be interested in the advancement of science in Washington.[1] Among those approached for funds was Mr. Andrew Carnegie, who took the matter under consideration. The plan presented to Mr. Carnegie was practically as above outlined. About this time, however, a powerful opposition to the national university plan developed, chiefly among the privately endowed institutions in the eastern section of the country. When it became known to these institutions that Mr. Andrew Carnegie had under consideration a proposition to finance an institution in Washington for teaching and research they exerted their influence to induce him to leave out all teaching features and make it, not a university or institution open to students, but an institution for special investigations. They succeeded, and the result was the Carnegie Institution, the establishment of which Mr. Carnegie announced in his letter to the Secretary of

1 Bulletin 65, Department of Agriculture, cit. super.

the Smithsonian Institution, dated December 27, 1901. There seems, therefore, to be no question that the plans and arguments laid before Mr. Carnegie for the Washington institution for both teaching and research first interested him in this general subject, for it was the gentlemen of the committee of the Washington institution who presented the cause to him. The first board was made up of some of these same gentlemen, and the first president of the Carnegie Institution was Dr. Daniel C. Gilman, who had been chosen as the director of the Washington institution. In this sense, therefore, the Carnegie Institution was a substitute for the Washington Institution proposed by the Washington Academy of Sciences and the Washington Memorial Association.

The Carnegie Institution represents, of course, a great idea.

No one can regret that those little proposals resulted in this tremendous result. Looking back at it, I can see now that it was well. From my point of view, I would say that it was providential that the little private institution failed and the great Carnegie Institution for Research was formed.

Mr. Fess. In your judgment, President Dabney, would this national university displace any phases of this proposition, the Carnegie Institution here?

Dr. Dabney. Oh, not at all. The Carnegie Institution does not meet the need of a national university. It is endowed for special research work, and it can, after all, only endow a few lines of research. The Carnegie Institution, as far as it goes, is, to my mind, another asset for the national university and another reason for the national university.

It has already done a vast deal for the advancement of scientific research, and we are sure it will always be an honor to our country and a benefit to the whole world, but it does not meet the needs of the situation. The Carnegie Institution is a foundation for the promotion of special scientific research by private individuals, by societies or institutions. It has no relation to the National Government or its bureaus, and can only in a very limited way serve the needs of the scholars of the country. It is not open to all students. It is a private institution in this sense, and can not cooperate as freely with the Government bureaus as will a national institution. The need of a national institution, therefore, remains just as urgent as before its establishment.

Another influence to be considered in shaping the institution of the future must now be mentioned. This is the need of the Government itself for scientific workers and the failure of the ordinary civil service to provide for them. The civil service furnishes a very good method for securing clerks, statisticians, or ordinary officials for the Government service, but it does not furnish adequate methods for securing scientific experts. Therefore, the almost uniform policy in the Government laboratories has been to train these men on the spot, i. e. in the surveys or laboratories. The Geological Survey, the Forestry Service, the Biological Survey, and the various scientific laboratories have followed this plan for years. One thing needed was some method of bringing the young men who desired to enter upon such careers into correspondence with the directors of the laboratories who wanted them. A means to this end has always been lacking, and

is still lacking in a great measure, though something has been done in recent years to fill the gap.

Let me give you an illustration from my experience: When I was in the Department of Agriculture I was walking one day through a museum and I stopped before a case of specimens and saw an old one-armed gentleman working away as best he could with his single hand cleaning the specimens. I said, "My man, how do you happen to be doing this?" He said, "I do not know; I have been doing it for a number of years." "What is your position?" I asked. "I am a messenger in the department," he said. "What is your salary?" "Seventy-five dollars." "Would you not rather do something else?" He said, "Yes; I am an old man and I would rather do the regular work of a messenger." I thought it over and remembering a young man in one of the colleges who was studying just that line it occurred to me I could help them both. So I got the old man a job where he could be out of doors and the young college graduate was put to work on the specimens. I did not follow the old man, but the young man got the opportunity he needed for scientific research, with the result that he afterwards became a professor in an agricultural college in the country, and is now head of an important division in the Department of Agriculture. You see, the young man got just the opportunity he was seeking for his development. Now, gentlemen, there are hundreds of such places that should be filled by such young men. They are now being filled through the civil service by people who too often have no particular interest in doing that particular kind of work, and therefore they do it mechanically. There are thousands of opportunities for students to do ordinary work that is mechanical for other people, but which they would do with a scientific interest because it gave them an opportunity for study. There are a great many opportunities for scientific research in the laboratories and even in the general offices of the Government that ought to be open to graduates of this kind.

Mr. FESS. Would efficient work in the department interfere with their study?

Dr. DABNEY. I do not see how it could; it should improve it; I believe that it would help the work of the department. It always pays to put interest and brain in your work.

Mr. TOWNER. Have you not an illustration of the effect of this cooperative work in your Cincinnati college?

Dr. DABNEY. Yes, sir; I am coming to that a little later. I think the cooperative plan of instruction can be extensively and usefully applied in the Government departments. It could be carried out much better, of course, if we had a national university here. This has been shown by the work of some of the departments already.

In the report of the Secretary of Agriculture for 1898, for example, we find this official recognition of this practice of workers in the departments:

> The scientific divisions of the Department of Agriculture can to some extent provide postgraduate facilities. We can direct the studies of a few bright young people in each division, and when the department requires help, as it often does, these young scientists will be available. They should be graduates of agricultural colleges and come to the department through a system of examination that will bring the best and be fair to all. The opening of our laboratories for postgraduate work will provide an eligible list from which to fill vacancies as they occur, supply temporary agents, and be a source from which State insti-

tutions might get assistants in scientific lines. (Yearbook, Department of Agriculture, 1898, pp. 18, 19.)

The Secretary goes on to say that to meet this situation he has inaugurated a new class called "student assistants." The Forestry Service carried on for a number of years a regular school for the training of assistants. The rank of "forest student" was created and the young man was instructed both in laboratory and the field in preparation for appointment to full service.

The Geological Survey has followed the same plan with good success. Writing in Science as early as June 28, 1901, the then Director of the Survey, Charles D. Walcott, wrote:

> In the Geological Survey graduate students, being the best men available for temporary field assistants, were given preference, but as the development of the work progressed, including other scientific bureaus of the Government, it became impossible to find men qualified for the permanent positions opened to them. Graduate students were obtainable, but they were without practical training. The Civil Service Commission was called on, but has had no eligibles on its lists. The only way out of the difficulty seemed to be for the heads of Government scientific bureaus to select bright, well-educated men and train them. This they have been doing for several years. The Geological Survey cooperates with such institutions of learning as are willing to give the advance instruction necessary to fit students to engage in the special lines of investigation carried on by it. This cooperation consists mainly in the employment of graduate students and instructors. A high standard is maintained by the character of the examinations held.

And the director goes on to give a list, including Harvard, Johns Hopkins, University of Chicago, Yale, Cornell, Wisconsin, Stanford, Amherst, and other colleges, all of whom supplied two or more, and some 20 other institutions, each of which supplied a single assistant to this one survey in one year. He says that 50 per cent become permanent members of the survey, and the others return to the States to do valuable work there.

There is a regular medical school in connection with the library and museum of the Surgeon General's Office. This school is only open to the young men who have been admitted to the Government service, though medical students at Washington colleges are permitted to use the library. The Bureau of Standards also carries on regular classes. The report says:

> The development of researches in this bureau must necessarily go hand in hand with the development of man to make the researches; hence, the educational side of this bureau is much more fully developed and much more successful than that of most others.

Other bureaus and laboratories in which men are being trained, or would be admitted are enumerated in the report as follows: Public Health Service, Bureau of Fisheries, Naval Observatory, Patent Office, Bureau of Education, Bureau of Manufactures, Coast Survey, Bureau of Statistics, and the War Records Offices of both the Navy and War Departments. The bureaus of the Department of Agriculture, Geological Survey, etc., have been mentioned above. In all, there are some 40 distinct institutions, bureaus, libraries, or laboratories that would be glad to take students for research or training or have already done so.

The history of the department shows that this is the way in which many of the distinguished men in the Government service have been trained. Many young men trained in the Government service have

also gone out into universities and technical institutions of the country. In fact, for a long time it was the only way in which certain classes of experts, like topographical engineers and geologists could be trained. There were no other places in the country where they could get this special education. Until the agricultural and mechanical colleges were established, the Government service offered almost the only method of getting training in agricultural chemistry, economic entomology, horticultural science, and in sciences connected with the animal industry. Although many of the universities taught the theory of geology and these other sciences, they offered almost no opportunities for practical training.

The colleges were for a long time institutions apart from real life and the real practice of the sciences; so that the Government or State services offered young men their only opportunities for this training. The same was true in a large degree also of economics and political science. There were only a very few chairs in these subjects in our country until after the Civil War. There was only one chair in political science in the Southern States before 1880, and that was the one founded by Francis Lieber, a German scholar, at the State College of South Carolina. Government office offered the only opportunity for study in these lines also. Illustrations of eminent men who have been trained in the Government service will occur to all of you. It may not be improper to mention two men distinguished for their service to their country in different departments who are still living: The present Counsellor for the State Department, perhaps the greatest authority on international law and connected subjects in this country, commenced his career as a law clerk in that department. He has held the highest professorship in the country in this subject, and has been called back to Washington repeatedly for the service of his country. The present Secretary of the Smithsonian Institution, a position which we rightly regard as the deanship of the scientific profession in this country, commenced his career as an assistant geologist, first on the New York State survey and very soon afterwards on the United States Geological Survey, where he worked through all of the different grades up to the directorship. He was the man who perfected the plans for the geological survey of this country. I might give you the names of hundreds of men who have been trained by this method for the service of science and their country. Still, unquestionably, the greatest difficulty that the Government encounters is this one of getting men to do its work. I can assure you that the same is true with regard to the work of the universities and the scientific work of the States. It is men with training, not mere learning, that we want everywhere. The burning question to-day is how to get men who not only know things, but who know how to do things. The Government service offers the best opportunities in this country for training men of this type. Why should it not be used in a more systematic and liberal manner for training the young men of the country? I contend that it should be, and that to this end there should be an institution in Washington which would introduce these young men into the Government service and educate them on the scientific side while they are getting their practical training. The question arises then, How shall this be done?

I believe that any plan which would admit graduates of the colleges and universities to the Government service while they are get-

ing their professional training, is bound to produce good results. The plans already in use in the departments referred to are good methods. The plan of admitting scientific aids as pursued for a time in the Department of Agriculture was a good one, but, judging from our experience at the University of Cincinnati, I believe with my colleague, Dean Schneider, who recently appeared before you, that the cooperative plan would be a better one.

I come now to the application of the cooperative plan of training experts.

I read Dean Schneider's excellent speech before this committee. He explained the general plan to you.

Mr. TOWNER. Dean Schneider only told us of his views on the general subject of vocational education. He made no particular application of it to the matter before the committee. I would be glad if you would go into that.

Dr. DABNEY. I can begin with this plan for scientific assistants in the Department of Agriculture. The plan at that time was to seek out those young men in the colleges who wanted to work in agronomy, in agricultural chemistry, on soils, in economic biology or entomology, etc., and bring them here and give them a minor position, say from $75 a month up, and put them in the Government service under professors who would be their guides and teachers while they studied in the institution in Washington.

Mr. TOWNER. What would you think of a plan of allowing such a college course to take the place of a civil-service examination?

Dr. DABNEY. I doubt very much whether it would do it. The Government examinations are necessary. There ought to be some special examination or inquiry of some kind to find out whether the applicant is specially fitted to do the particular work which he aspires to do. But that would be a minor matter. You might let some agent of the national university look after that.

Mr. TOWNER. Assuming that the place sought was a place in the Biological Survey of the Agricultural Department and the applicant had a diploma from the school of biology of an accredited university, would you say that was sufficient?

Dr. DABNEY. The department might desire a man to do some particular work—say on soils or on crops. Now, you would probably find a good many graduates in biology, but they might not be particularly fitted for that work. The fact that a man was a graduate in biology might not be enough. No; I would not like to commit myself to the broad proposition that the graduate should be given a place just because he is a graduate. I think that the head of the bureau ought to be able to select the men for the various branches of the work in his bureau. There are so many kinds of work going on that there would be opportunities for many of the biological graduates.

Mr. FESS. I had a statement, a worked-out statement, from Dean Schneider that I would like to submit in answer to Judge Towner's question.

Dr. DABNEY. I hope you will. What is needed from this point of view is an institution to act as a clearing house between the colleges and the Government laboratories.

With an institution in Washington of the type of the national university proposed, or at least of the modest character of the Wash-

ington institution which we tried to start here in the late nineties, hundreds of young graduates could be gotten together who would be glad to serve the Government on small salaries for the sake of the training they would get. Our experience in Cincinnati indicates that the Government would thus get the highest class of scientific service at the smallest expense. But this should not be the chief consideration. The chief object should be to open up the Government departments for the purpose of educating and training the future servants of the country. My colleague has, however, described this cooperative plan to you fully, and I need only say that I heartily indorse all of his opinions and sincerely believe that the plan can be successfully applied to the national university. There is no reason in the world why this class of students might not do the routine technical work of the laboratories, libraries, museums, statistical offices, and other bureaus of the Government, being advanced from one class of work to another as they got the knowledge and experience.

Another great service that a national university might render the Government would be the correlation of the different Government scientific departments. I need not tell you that there is an immense amount of duplication of work among these departments, resulting in a great deal of waste time and money. Of course, this is not designed; it results from the way in which the Government bureaus have grown up independently of each other.

I have had a little experience along that line. Members of Congress know how a new bureau in the Government gets started. Because of their somewhat mysterious character it used to be easier to start a new scientific laboratory than any other new bureau in the Government. The new bureau started in an appropriation bill. Some bright young man connected with some scientific laboratory thinks of some line of work that would be of some value to the Government and he begins to work for it. In the old days he did not even have the permission of the Secretary, but he or his friends would come before a committee and try to show why a certain new bureau was needed. To-day he would need to get the permission of his chief and the Secretary, but that is still, perhaps, not very hard to do. You gentlemen know how these things come up. A new scheme is presented and a little appropriation is asked for, perhaps only $5,000 or $10,000, and it gets into the appropriation bill. I know of a little bureau in one of the departments which started with $5,000, and, now after 15 years, it gets $400,000. It is not necessary to say whether it was a good line of work or not. That bureau now has many different laboratories, duplicating to a certain extent the work in other bureaus. I will not say that they are unnecessary, but it is too easy to duplicate these laboratories. There should be some central authority to coordinate and correlate them.

The different bureaus are doubtless trying faithfully to eliminate this waste within their own field, but so far no agent has been found to eliminate this duplication as between the different departments and bureaus. Congress has from time to time made honest efforts to eliminate this duplication and establish better correlation, but in the nature of things committees or commissions can not do it; it is a piece of work that requires time, patience, and scientific ability. To take a single illustration: The last time I made a count (in 1901)

the Government had seven different chemical laboratories in Washington. I expect that a number of others have been established since. Now, chemistry is chiefly a tool used by the Government in its scientific and economic work; it is just one method of testing and measuring things. The principles and methods by which this testing and measuring is done are for the most part the same in all departments. Why, therefore, should there not be in Washington one great chemical laboratory, like a great factory, in which all the chemists here occupied might be given laboratories, remaining still under the various departments? The majority of them are carrying on their work at the present time in rented buildings inferior to any of those in the universities and under conditions that are not especially favorable or stimulating. A central plant in which all the chemists would be brought together would not only help to eliminate duplication and promote economy, but would, by encouraging personal contact and discussion, greatly improve the chemists and the work. The same is true of the biological, medical, and other services of the Government.

But this brings up the great question of the proper housing of the Government scientific bureaus, laboratories, and libraries, a question too large to be discussed at this time. Aside from the question of housing, however, there can be no doubt that a central scientific institution could do a great deal to correlate and otherwise improve the work of all the Government scientific departments.

Another consideration in advocating a national university of this type is the duty of utilizing these vast stores of scientific material in Washington as completely as possible for the advancement of knowledge. It is a well-known fact that the demands for immediate economic results by the Government compel its scientific staff to devote their energies almost exclusively to the study of problems having practical ends. The rich materials for the advancement of pure science are thus necessarily neglected in a large measure. If in each of the Government scientific bureaus there were a number of advanced students working on their material with reference to the advancement of pure science, the world would certainly get a much larger output of results. The utilization of material by a limited number of students of this character need not interfere at all with its use for economic results. On the other hand, a complete scientific study of the material would undoubtedly greatly promote the efficiency of the departments in reaching the immediate results demanded by the Government. The presence and work of advanced students would undoubtedly greatly improve the work of the Government scientific staff itself.

It is conceded by all educational authorities also that the investigator who is doing a limited amount of teaching does the best work for the advancement of science. Teaching makes it necessary for a man to go over his subject broadly, and the presence of young and earnest minds is always very stimulating to the investigator. The man who spends all of his time in particular research too often loses his connection with everything else, with the result that he becomes buried in one subject. The greatest investigators have always been great teachers. It is fully believed, therefore, that a reasonable amount of teaching would not injure but would improve the scientific staff of the Government at Washington.

There is another consideration, however, which appears to me to be more important than any of those mentioned so far, and that is the influence that the faculty and students of the national university would have upon the entire Government, Congress, and the executive departments, as well as these scientific bureaus and surveys. We have in mind, of course, the new type of a university and not the ancient cloistered institution. The time was when universities considered themselves as things apart from real life, but in these days the university is making itself more and more the servant of the people. Some years ago we used to hear a good deal about "university extension"; that is, about the plans of extending the instruction given by the university to the ordinary people. In these days the university seeks to live among the people and work with them all the time. We are familiar now with the splendid work being done, for example, by the University of Wisconsin. You know the extent to which the State of Wisconsin uses the members of its faculty on its various commissions; you are also familiar with the remarkable work of the legislative reference bureau and of the Industrial Commission of Wisconsin. Through such measures the university has become a part of the living organism that we call the State of Wisconsin, the brain commanding every part of the body politic. As a result, we all recognize Wisconsin as one of the most progressive of our States, the one to which we all look for new ideas in government. We may not approve of all the different political and economic experiments they are trying in Wisconsin, but it certainly is most important that these experiments should be tried out in the scientific and efficient way in which they are being tested under the direction of the University of Wisconsin.

My thought is, therefore, that the national university at Washington would serve the National Government in the same way that the University of Wisconsin serves the State of Wisconsin—it would furnish a great board of experts here at the National Capital to study, counsel, and advise about all our great scientific, economic, industrial, educational, and social problems. It has been proposed, for example, that there should be a national legislative reference bureau. The national university would itself be such a bureau.

Right here let me refer to that old argument against the national university that the politicians would be certain to interfere with it. Anyone who is familiar with the work of these new State universities is bound to be amused at this. In the old days, while the universities were being established, and before they asserted themselves, they were more or less interfered with by the politicians. That was a kind of diseases that belonged in the childhood of our institutions. But since the universities have been established and have filled the legislatures with their graduates, the thing works the other way. Instead of the politicians running the universities, the universities of the country are more and more directing the economic and governmental work done by the legislators.

Let me illustrate by a State university. I went once to see that grand old man, the greatest president of any State university—Dr. James B. Angell—and he told about some legislation he was advocating for a State system of education. After he explained the matter, which elicited my keen interest, I said, "Doctor, your legislature is in session. I suppose you will go to Lansing and see about

it." He said, "No; I shall not. I have many of my boys there. All I need to do is to tell them what ought be done and they will do it." President Angell was, of course, supreme in Michigan; but this shows what an influence a State university can exert.

A national university in Washington, officered by the wisest and best scholars in this country, would, in my opinion, exert far more influence upon Congress than Congress would exert upon it. In fact, it is ridiculous to charge that any considerable number of Members of Congress can be found who would be so silly as to undertake to influence the thinking, teaching, and counseling men competent to fill the chairs and work in the laboratories of a national university. In my opinion, you would find that a fine spirit of cooperation would soon grow up and that Members of Congress would constantly appeal to the faculty of the university to advise and help them in their work for the country.

In conclusion, let me recall another personal illustration with which you may be partly familiar. Some 30 years ago a young man, a graduate student in a neighboring university, came here to Washington to study. Every week for a year or more while studying in the university that young man came here to these halls to study the system of government of his country. He passed through these halls, he visited the committees, and sat long hours in the galleries of the House and Senate. He studied in the libraries and in the departments and so collected the material for the dissertation on which he was granted the doctor's degree. Last year that young man stood at the Clerk's desk in the House of Representatives and, for the first time since Washington, delivered a presidential message to Congress. Gentlemen, do you not think it was worth while to give that young man the opportunity to study in Washington? Woodrow Wilson got his training in that way. In just that way many other young men could get a similar training if they had the same opportunity. President Wilson made his book on Congressional Government first as a thesis in preparation for his college examination. You know what a valuable book it has been. Do you not believe that if 100 young men had been given the same opportunity that young man had we would have now in the departments in Washington and in the States more polished scholars like Woodrow Wilson? If the departments could be opened up to such young men, we would soon have thousands here studying the problems of this country.

Mr. PLATT. Is it not true that the departments are open to such men as Woodrow Wilson to-day?

Dr. DABNEY. Yes, to a very limited extent; but how many young men know how to find these things? Wilson was the pioneer. Perhaps other young men lacked the initiative, the energy, and judgment, but I believe Wilson owed something to the direction of the great professors at Baltimore.

Mr. PLATT. But this bill says that no man who has not a M. A. degree can come here.

Dr. DABNEY. Well, Wilson had a college degree, and undoubtedly there were not many Woodrow Wilsons at that time or perhaps very many since. But his example shows what a young scholar may do for science here. You know that his book on "Congressional Government" is the first book we had giving the method of the work of the Congress. Is it not remarkable that no man wrote

such a book until 1883, and that it was written then by a college student? You recall also that an Englishman had to come to Washington to write the first complete textbook on the "American Commonwealth"—James Bryce, now Viscount Bryce, until recently ambassador of Great Britain to our country. This joint illustration certainly shows clearly that we need scholars here to work up these problems and make these books for us.

Mr. RUPLEY. Is our present system of education not changing our Government from a representative democracy to a more modified form of pure democracy?

Dr. DABNEY. I suppose the tendency is in that direction, because we are educating all the people. It is making more men who are competent to really represent the people in the work that is to be done for the Government. Our Government is becoming as the result of more complete public education a more representative democracy.

Mr. RUPLEY. Again, is it not probable that this may bring up a violent condition in our affairs, social and otherwise——

Dr. DABNEY (interposing). Violent? I do not know what you mean by a violent condition. I do not see why it should be. We started out here in America to establish a democratic system of government, a government, as Lincoln said, "by the people, for the people, and of the people." There is therefore no way to make it a success except by educating all the people. Do you mean to say that it is necessary to keep some of the people ignorant? No; equal opportunity for all must be the rule in all our educational plans, as Dean James says. A system of education is a winnowing machine which enables every man to find the right plane for his work. The idea is to develop the God-given power in every man to work in the place where he serve his country and fellow men best.

Mr. RUPLEY. When I said violence, I did not use the word in the ordinary acceptation of it, but I had in mind changed conditions and unsettled governmental conditions.

Dr. DABNEY. No; I do not think any such conditions would result from the enlargement of our plans of higher education by establishing a national university. I believe the more wisdom and training men have the better and truer citizens they are. I think a violent change is much more liable to occur in a country where the educated people are few and the many are left uneducated. This is, of course, a truism.

Mr. PLATT. Doctor, I asked you a question as to whether or not the departments are now open to real research students? Would a national university composed exclusively of an examining board answer the purposes and let the men do their research work anywhere?

Dr. DABNEY. No; I think study and investigation should be provided for. The University of London and the other universities of England are giving up that system and all becoming teaching universities. In that connection I will refer you to the report of the Royal Commission on the London University. It is found in the London Bluebook. The London University was for a long time merely an examining university. It is now to be a complete university, with teaching departments fully developed.

Mr. PLATT. Well, it would naturally develop in the course of time to what it now is.

Dr. DABNEY. We need trained civil servants for every part of the Government work. We need trained scientific men and an educated civil service in every department. What the Nation needs above all is trained legislators. In this country the vast majority of our legislators and public servants are amateurs. It is not so to such an extent in England or on the Continent. Look at Germany, with its most magnificent corps of trained public servants. I think the proposed national university would help greatly to produce such a class of public servants for our country. I thank you.

The CHAIRMAN. Doctor, we are very glad to have had you with us to-night.

Mr. POWERS. Will any of the gentlemen we will hear tonight enter into a discussion of the efforts that have been made heretofore to have Congress take up the question of a national university?

Mr. FESS. That is already in the first hearing. Mr. Chairman, I presume there is more intellectual and administrative ability in this room gathered about this table than can be heard to-night, and as it is now 10 o'clock and there are gentlemen here from Wyoming and Tennessee and the far West, I think that when we adjourn we ought to continue these hearings to-morrow morning. I move that when we adjourn to-night we adjourn to meet to-morrow morning at 10.30.

Mr. POWERS. I second the motion.

(The motion was agreed to.)

The CHAIRMAN. I now take pleasure in presenting Dr. Duniway, of the University of Wyoming.

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